

Cardiovascular Disease Fact Sheet

Gippsland Region

The **Gippsland** region covers an area of 41,538 square kilometres (approximately 18% of Victoria). It extends from the outskirts of the Gippsland growth area of Cardinia Shire, to the New South Wales border. In 2005, it had an estimated resident population of 248,948 (5.0% of the Victorian population). The region includes six local government areas (LGAs). This fact sheet presents Department of Human Services data for the Gippsland region relating to a variety of cardiovascular outcomes and risk factors.

It aims to provide answers to the following questions for this region:

- How common is cardiovascular disease?
 - What is the impact of cardiovascular disease?
 - How common are some of the risk factors for cardiovascular disease—specifically smoking, diet, exercise, obesity and high blood pressure?
 - How commonly do people use screening tests?
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Several specific terms are used in this fact sheet. These terms are defined as follows:

- **Cardiovascular disease**
A general term that refers to heart, stroke and blood vessel disease. The underlying cause of most cardiovascular disease is a gradual clogging of the arteries (called atherosclerosis) that supply blood to the heart, brain and other vital organs.¹
- **Heart disease**
A general term used to describe a range of diseases affecting the heart.
- **Ischaemic heart disease**
A condition caused by the slow build-up over many years of fatty cholesterol-containing deposits (called plaques) in the inner wall of one or more of the heart's arteries. If the coronary arteries (those arteries supplying the heart with oxygen) become too clogged, the flow of blood is reduced and the heart may not be able to meet the demands placed on it to pump harder during times of exercise or stress. It is also sometimes referred to as coronary heart disease and can lead to angina or heart attack.²

- **Stroke**
Stroke occurs when an artery supplying blood to a part of the brain becomes blocked or bursts. As a result, that part of the brain is damaged because it is deprived of its blood supply, which normally carries oxygen and sugar to the brain and enables it to function.³
- **Region**
This fact sheet covers the Gippsland region which includes the following LGAs: Bass Coast, Baw Baw, East Gippsland, Latrobe, South Gippsland, and Wellington.
- **Local government area (LGA)**
A municipal council area.
- **Primary care partnership (PCP)**
Groups of LGAs that cooperate together to improve delivery of primary healthcare services and health promotion activities in their local communities. This fact sheet covers the following PCPs: Central West Gippsland PCP, East Gippsland PCP, the South Coast Health Services Consortium PCP and Wellington PCP.
- **Prevalence**
The proportion of people who have a disease at a particular point in time (e.g. 'at the end of 2006'), irrespective of when they were either diagnosed with the condition, or when they first developed the condition.
- **Disability-adjusted life year (DALY)**
The disability-adjusted life year (DALY) is a measure of the disease impact in a population. This measure combines the effects of healthy years of life lost due to developing illness or becoming injured, with years lost through premature death. One DALY can be thought of as one lost year of healthy life.
- **DALY rates**
The number of DALYs per 1000 people in the population. The population in areas with high DALY rates has a poorer health status than populations in areas with lower DALY rates. Differences in DALY rates are not due to differences in the age structure between areas.

Data sources

This fact sheet draws on the following information provided by the Department of Human Services:

- Victorian Population Health Survey 2006
- 2001 Victorian Burden of Disease Study.

Information about the degree of detail available in these data sources is shown in Table 1.

Table 1: Sources of data on cardiovascular disease, by type of data available

Source	Type of information	Available for:			
		Victoria	Regions	PCPs	LGAs
Victorian Population Health Survey 2006	Self-reported prevalence of:				
	• heart disease	✓	✓	x	x
	• stroke	✓	✓	x	x
	• obesity/overweight	✓	✓	x	x
	• smoking	✓	✓	x	x
	• physical inactivity	✓	✓	x	x
	• consumption of fruit	✓	✓	x	x
	• consumption of vegetables	✓	✓	x	x
	• high blood pressure	✓	✓	x	x
	• blood pressure screening	✓	✓	x	x
2001 Victorian Burden of Disease Study	Prevalence and DALY rates for:				
	• ischaemic heart disease	✓	✓	✓	✓
	• stroke	✓	✓	✓	✓
	• total cardiovascular disease (DALY rates only)	✓	✓	✓	✓
	• total cardiovascular disease (prevalence)	✓	x	x	x

For further information

Methodological information and other results may be found in selected reports of findings from the Victorian Population Health Surveys and the Victorian Burden of Disease Study. These reports and other useful resources can be downloaded from the website <http://www.health.vic.gov.au/healthstatus>.

How common is cardiovascular disease?

Information about the occurrence of cardiovascular disease is taken from two sources: the Victorian Population Health Survey, an annual statewide survey that the Department of Human Services (Chronic Disease Surveillance and Epidemiology Section, Public Health Group) undertakes in the second half of each year to collect a wide range of information about the health of the adult Victorian population, and from statistics compiled as part of the 2001 Victorian Burden of Disease Study.

Findings from the Victorian Population Health Survey relate to 2006 and are reported as percentages. These data represent the proportion of adults aged 18 years or more who reported that they had been diagnosed with either heart disease or stroke. Adults living in nursing homes and other similar settings were not included in the survey population.

Findings from the 2001 Victorian Burden of Disease study are estimates of the number of people, who at any point in time during the year 2001, had the condition, regardless of when it first affected the individual. These data were available for ischaemic heart disease, inflammatory heart disease and stroke. The data were calculated using a variety of sources and represent all Victorians, irrespective of type of diagnosis, age or living situation.

How common is heart disease?

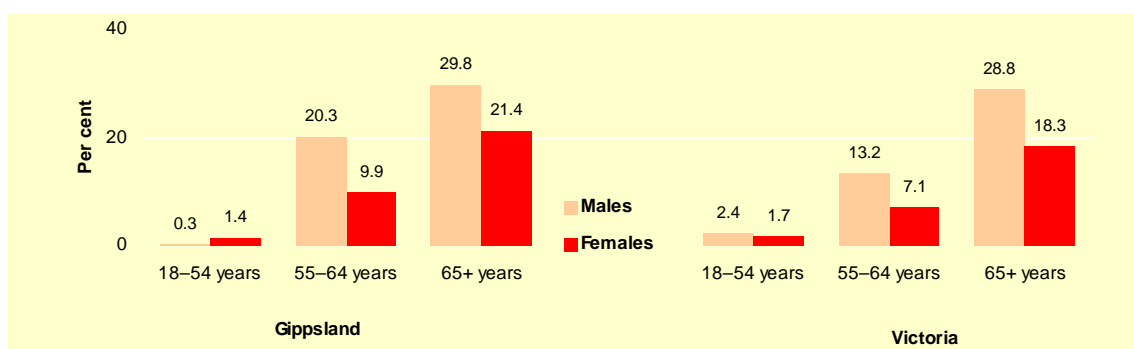
In 2006, 6.8% of Victorians reported that they had been diagnosed with heart disease by a doctor. Additional detail on the specific type of heart disease was not collected. Table 2 compares the self-reported prevalence of heart disease in the Gippsland region with that for Victoria.

Table 2: Self-reported prevalence of heart disease, by sex and age, 2006

Sex	Age group	Gippsland		Victoria	
		(%)	95% confidence interval	(%)	95% confidence interval
Males	18–54 years	0.3	0.0–0.8	2.4	1.5–3.2
	55–64 years	20.3	10.9–29.6	13.2	9.3–17.0
	65 years or more	29.8	20.4–39.3	28.8	24.6–32.9
	Total	9.8	6.9–12.7	8.1	7.0–9.2
Females	18–54 years	1.4	0.4–2.5	1.7	1.1–2.3
	55–64 years	9.9	4.0–15.8	7.1	4.9–9.3
	65 years or more	21.4	13.5–29.3	18.3	15.1–21.6
	Total	7.4	5.1–9.8	5.6	4.8–6.4
Persons	18–54 years	0.8	0.3–1.4	2.0	1.5–2.5
	55–64 years	15.1	9.5–20.7	10.1	7.9–12.4
	65 years or more	25.3	19.2–31.4	23.0	20.3–25.6
	Total	8.6	6.7–10.5	6.8	6.1–7.5

In Victoria in 2006, over one-quarter of men aged 65 years or more had been diagnosed with heart disease. This compares with 18.3% of Victorian women in the same age group. In the Gippsland region, the self-reported prevalence of heart disease was generally a little higher than that for Victoria. In men aged 55–64 years the prevalence of heart disease (20.3%) was notably higher than for Victoria (13.2%), but this difference was not statistically significant. As observed for the state as a whole, the prevalence in adult men (9.8%) was higher than in adult women (7.4%).

Figure 1: Self-reported prevalence of heart disease, by sex and age, 2006



How common is ischaemic heart disease?

Ischaemic heart disease is one of the most common types of heart disease. Based on estimates compiled for the 2001 Victorian Burden of Disease Study, there were 45,051 Victorians living with ischaemic heart disease in 2001. This represents 53.9% of Victorians living with heart disease in that year.

Table 3 contains estimates of the number of Victorians living in the Gippsland region with ischaemic heart disease in 2001. It details the number of males and females with ischaemic heart disease in each LGA and PCP of the region.

Table 3: Estimated prevalent cases of ischaemic heart disease in the Gippsland region, by PCP, LGA and sex, 2001

Area	PCP	LGA	Males (n)	Females (n)	Persons (n)
Gippsland	East Gippsland	East Gippsland	296	210	506
	Wellington	Wellington	184	170	355
	Central West Gippsland	Baw Baw	169	149	317
			Latrobe	332	307
	South Coast Health Services Consortium	Bass Coast	196	152	347
		South Gippsland	129	112	241
	Total		1307	1099	2407
Victoria			23,227	21,824	45,051

Some 2407 people were estimated to be living in the Gippsland region with ischaemic heart disease. Of these, more than one-quarter lived in Latrobe City.

Approximately equal numbers of Victorian males and females were estimated to be living with ischaemic heart disease.

How common is stroke?

In 2006, 1.9% of Victorian adults indicated that they had been diagnosed with stroke by a doctor. Table 4 compares the self-reported prevalence of stroke in the Gippsland region with that for Victoria.

Table 4: Self-reported prevalence of stroke, by sex and age, 2006

Sex	Age group	Gippsland		Victoria	
		(%)	95% confidence interval	(%)	95% confidence interval
Males	18–54 years	0.0	0.0–0.0	0.4	0.1–0.7
	55–64 years	5.5	0.8–10.1	3.7	1.4–6.0
	65 years or more	9.7	3.5–16.0	7.9	5.6–10.2
	Total	3.0	1.4–4.5	2.1	1.5–2.6
Females	18–54 years	1.7	0.1–3.2	0.5	0.3–0.8
	55–64 years	0.0	0.0–0.0	3.5	1.9–5.2
	65 years or more	6.8	2.2–11.3	5.0	3.2–6.8
	Total	2.6	1.1–4.0	1.8	1.3–2.3
Persons	18–54 years	0.8	0.0–1.6	0.5	0.3–0.7
	55–64 years	2.8	0.4–5.1	3.6	2.2–5.0
	65 years or more	8.1	4.4–11.9	6.3	4.9–7.7
	Total	2.8	1.7–3.8	1.9	1.6–2.3

In the Gippsland region, the self-reported prevalence of stroke among adults (2.8%) was higher than that for Victoria (1.9%). This difference was not statistically significant. In men aged 65 years or more who lived in the region the self-reported prevalence was 9.7%. This compares with a self-reported prevalence of 6.8% among women aged 65 years or more for the region.

Based on information from the 2001 Victorian Burden of Disease Study, an estimated 33,664 Victorians were affected by stroke in 2001. Of these, 1767 lived in the Gippsland region, and within this group more than 25% lived in Latrobe City.

Table 5: Estimated prevalent cases of stroke, by PCP, LGA and sex, 2001

Area	PCP	LGA	Males (n)	Females (n)	Persons (n)
Gippsland	East Gippsland	East Gippsland	147	179	326
	Wellington	Wellington	126	174	300
	Central West Gippsland	Baw Baw	113	153	266
		Latrobe	183	284	467
	South Coast Health Services Consortium	Bass Coast	98	123	222
		South Gippsland	81	104	185
Total			749	1018	1767
Victoria			14,049	19,615	33,664

There were marked differences in the gender balance between the self-reported data from 2006 and the prevalence estimates from 2001. The prevalence estimates from 2001 were modelled from a wider range of sources and, although less recent, provide a more accurate reflection of the true prevalence of stroke in the community as they include all cases of stroke, including those in hospitals and nursing homes. In contrast, the 2006 population survey excludes people aged less than 18 years and those who live in institutional settings such as nursing homes. Differences between

these two data sources should not therefore be interpreted as reflecting changes in the distribution of stroke.

What is the impact of cardiovascular disease?

The impact of cardiovascular disease includes that of ischaemic heart disease and stroke together with other types of cardiovascular disease. The impact of cardiovascular disease can be measured using DALYs. DALY rates quantify the number of DALYs lost per 1000 people in the population and are useful when making comparisons of health status between populations in different geographic areas.

Across Victoria, ischaemic heart disease accounts for 58.4% of the cardiovascular disease burden per 1000 in males and 46.9% in females. In the Gippsland region it accounts for 60.1% of the cardiovascular disease burden per 1000 in males and 47.2% of the cardiovascular disease burden per 1000 in females.

Table 6 compares DALY rates for cardiovascular disease in males and females in the Gippsland region with the rates for Victoria.

Table 6: Burden of disease and injury, all causes and cardiovascular disease, in males and females, DALY rates, 2001

Disease	Gippsland		Victoria	
	DALY rates per 1000 in males	DALY rates per 1000 in females	DALY rates per 1000 in males	DALY rates per 1000 in females
All causes	158.8	140.5	143.0	129.1
Total cardiovascular disease	28.8	24.6	25.5	22.4
• Ischaemic heart disease	17.3	11.6	14.9	10.5
• Stroke	6.5	8.3	6.2	7.8

DALY rates for total cardiovascular disease in the region were higher for both males and females than those for Victoria. DALY rates for ischaemic heart disease and stroke for both males and females were also higher than those for Victoria.

Table 7: Burden of cardiovascular disease in males and females by PCP and LGA, DALY rates, 2001

Sex	PCP	LGA	DALY rates per 1000			
			All causes	Total cardio-vascular disease	Ischaemic heart disease	Stroke
Males	East Gippsland	East Gippsland	157.3	28.8	17.7	6.2
	Wellington	Wellington	157.0	29.1	17.3	6.7
	Central West Gippsland	Baw Baw	158.6	29.5	17.5	6.8
		Latrobe	169.8	30.1	18.2	7.0
	South Coast Health Services Consortium	Bass Coast South Gippsland	152.9 145.5	27.7 26.2	16.8 15.2	6.1 6.0
Females	East Gippsland	East Gippsland	138.0	23.0	10.8	8.0
	Wellington	Wellington	138.7	24.9	11.8	8.5
	Central West Gippsland	Baw Baw	140.4	25.2	11.9	8.6
		Latrobe	152.0	27.3	13.2	8.8
	South Coast Health Services Consortium	Bass Coast South Gippsland	133.5 126.3	22.5 22.6	10.5 10.5	7.7 7.4

The highest DALY rates for cardiovascular disease occurred in Latrobe City for both males and females. The lowest DALY rates for cardiovascular disease occurred in South Gippsland for males and in Bass Coast for females.

How common are some of the risk factors for cardiovascular disease?

Selected key risk factors presented here include smoking, inadequate consumption of fruit and vegetables, physical inactivity, obesity and high blood pressure. Self-reported information about behaviour in relation to these risk factors was drawn from the Victorian Population Health Survey. Findings from the survey relate to 2006 and are reported as percentages. These data represent the proportion of adults aged 18 years or more. Adults living in nursing homes and other similar settings were not included in the survey population.

How common is smoking?

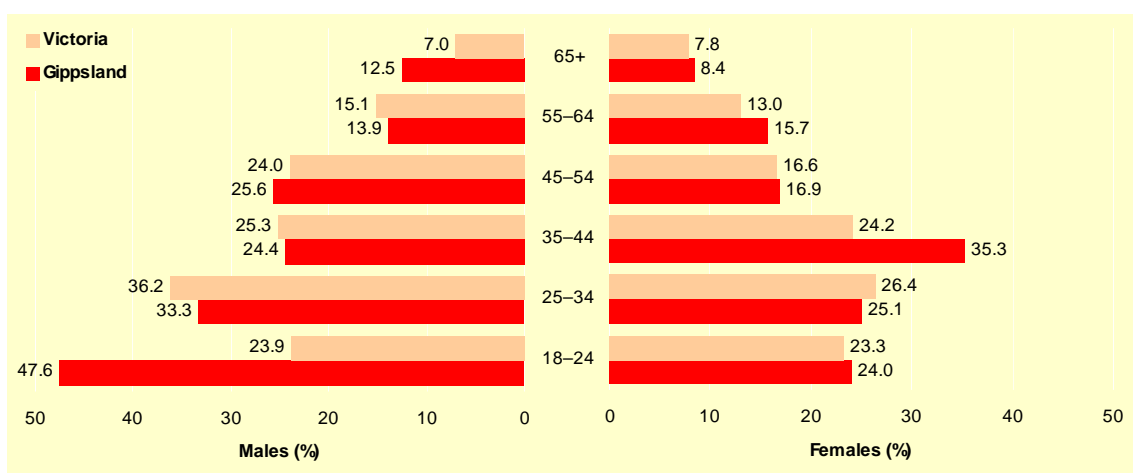
Smoking is a major risk factor for coronary heart disease, stroke and peripheral vascular disease as well as for numerous cancers and a range of other diseases and conditions. Table 8 shows the proportion of Victorian adults who are classified as current smokers on the basis of their self-reported smoking behaviour, by age group and gender. This table compares findings for the Gippsland region with those for Victoria. Current smokers were defined as those who smoke daily or occasionally.

Table 8: Self-reported prevalence of current smoking, by sex and age, 2006

Sex	Age group	Gippsland		Victoria	
		(%)	95% confidence interval	(%)	95% confidence interval
Males	18–24 years	47.6	20.0–75.2	23.9	17.0–30.8
	25–34 years	33.3	15.6–51.1	36.2	28.7–43.6
	35–44 years	24.4	10.6–38.3	25.3	20.4–30.1
	45–54 years	25.6	14.9–36.3	24.0	19.5–28.6
	55–64 years	13.9	6.8–21.1	15.1	11.3–18.9
	65 years or more	12.5	6.0–19.0	7.0	4.7–9.3
	Total	24.1	18.4–29.8	22.6	20.3–24.9
Females	18–24 years	24.0	4.9–43.1	23.3	16.9–29.6
	25–34 years	25.1	12.6–37.7	26.4	22.1–30.7
	35–44 years	35.3	25.8–44.7	24.2	20.8–27.7
	45–54 years	16.9	9.8–24.0	16.6	13.5–19.6
	55–64 years	15.7	9.1–22.3	13.0	10.1–15.8
	65 years or more	8.4	2.6–14.3	7.8	5.3–10.2
	Total	19.9	16.0–23.7	18.5	17.0–20.0
Persons	18–24 years	36.1	18.3–54.0	23.6	18.9–28.3
	25–34 years	29.2	18.3–40.1	31.2	26.9–35.6
	35–44 years	30.0	21.5–38.5	24.7	21.8–27.7
	45–54 years	21.2	14.8–27.7	20.3	17.5–23.0
	55–64 years	14.8	10.0–19.7	14.0	11.7–16.4
	65 years or more	10.3	6.0–14.7	7.4	5.7–9.1
	Total	22.0	18.6–25.4	20.5	19.1–21.9

More than one in five Victorian adults (20.5%) were categorised as current smokers in 2006 on the basis of their self-reported smoking behaviour. In the Gippsland region the rate was almost identical (22.0%). For young men aged 18–24 years, almost half (47.6%) reported that they were current smokers. This compares with 23.9% for Victoria. Among women in the region the percentage reporting that they were current smokers was highest in the 35–44 years age group. In this age group, 35.3% of women reported that they were current smokers, compared with 24.2% for Victoria. For those aged 35–44 years or more, the proportion of adults who were current smokers generally decreased with increasing age.

Figure 2: Self-reported prevalence of current smoking, by sex and age, 2006



Most current smokers were daily smokers (Table 9). Among Victorian adults, 17.5% of men and 14.9% of women smoked daily, while 5.1% of men and 3.6% of women smoked occasionally.

Table 9: Self-reported prevalence of current smoking, by type of smoking behaviour, sex and age, 2006

Sex	Age group	Gippsland				Victoria			
		Current daily		Occasional		Current daily		Occasional	
		(%)	95% confidence interval	(%)	95% confidence interval	(%)	95% confidence interval	(%)	95% confidence interval
Males									
	18–24 years	47.6	20.0–75.2	0.0	0.0–0.0	16.5	10.9–22.1	7.4	2.7–12.1
	25–34 years	17.2	3.9–30.5	16.1	1.5–30.7	24.0	17.6–30.4	12.1	6.2–18.0
	35–44 years	20.0	7.2–32.9	4.4	0.0–10.7	21.7	17.1–26.3	3.6	1.4–5.7
	45–54 years	23.2	13.1–33.2	2.5	0.0–7.2	19.4	15.2–23.6	4.6	2.4–6.9
	55–64 years	13.3	6.3–20.3	0.6	0.0–1.9	13.5	9.8–17.1	1.7	0.4–2.9
	65 years or more	9.4	3.8–15.1	3.0	0.0–6.6	6.4	4.2–8.6	0.6	0.0–1.2
	Total	19.8	14.5–25.0	4.3	1.5–7.1	17.5	15.5–19.4	5.1	3.7–6.6
Females									
	18–24 years	16.0	0.0–32.9	8.0	0.0–18.8	15.9	10.7–21.1	7.4	2.9–11.8
	25–34 years	22.9	10.7–35.0	2.3	0.0–6.7	21.6	17.6–25.5	4.8	2.5–7.1
	35–44 years	29.4	20.3–38.5	5.8	1.5–10.2	19.0	15.8–22.1	5.3	3.4–7.1
	45–54 years	14.8	8.0–21.5	2.1	0.0–4.7	14.7	11.7–17.7	1.8	1.0–2.7
	55–64 years	14.3	7.8–20.7	1.4	0.0–3.1	11.7	8.9–14.5	1.3	0.6–2.0
	65 years or more	8.4	2.6–14.3	0.0	0.0–0.0	6.2	4.0–8.4	1.6	0.4–2.7
	Total	17.1	13.5–20.7	2.8	1.2–4.3	14.9	13.5–16.3	3.6	2.8–4.4
Persons									
	18–24 years	32.3	14.5–50.0	3.9	0.0–9.2	16.2	12.4–20.0	7.4	4.1–10.6
	25–34 years	20.0	11.0–29.1	9.2	1.3–17.0	22.8	19.0–26.5	8.5	5.2–11.7
	35–44 years	24.8	16.9–32.8	5.1	1.3–9.0	20.3	17.6–23.1	4.4	3.0–5.9
	45–54 years	18.9	12.9–25.0	2.3	0.0–5.0	17.0	14.5–19.6	3.2	2.0–4.4
	55–64 years	13.8	9.0–18.6	1.0	0.0–2.1	12.6	10.3–14.8	1.5	0.8–2.2
	65 years or more	8.9	4.8–13.0	1.4	0.0–3.1	6.3	4.7–7.9	1.1	0.4–1.8
	Total	18.4	15.2–21.6	3.5	2.0–5.1	16.2	15–17.3	4.4	3.5–5.2

The proportion of adult males and females within the region who reported that they smoked daily was a little higher than that for Victoria, but the differences were not statistically significant. The proportion of men aged 18–24 years who reported that they smoked daily (47.6%) was almost triple the Victorian average (16.5%); however, this difference was not statistically significant.

How many serves of fruit and vegetables do people consume?

Plant foods have been found to be protective in a range of heart-related health problems, including coronary heart disease, high blood pressure, obesity and non-insulin dependent diabetes.⁴ Inadequate consumption of fruit and vegetables has been identified as a risk factor in the development of a number of chronic diseases, including coronary heart disease and stroke.

Evidence regarding the protective effect of vegetables is stronger than that for fruit, although this may be due to the limited range of fruit available in some populations and/or the greater amount of vegetables in most diets.⁵ Current Australian guidelines recommend a daily vegetable intake of three serves for people aged 12–18 years and five serves for people aged 19 years or more. The recommended daily fruit

intake is three serves for people aged 12–18 years and two serves for people aged 19 years or more.⁶

Tables 10 and 11 show the levels of reported consumption of fruit and vegetables by sex and number of serves, within the Gippsland region and within Victoria, for adults aged 18 years or more.

Table 10: Self-reported prevalence of daily vegetable consumption by sex and number of serves, 2006

Sex	Number of serves	Gippsland		Victoria	
		(%)	95% confidence interval	(%)	95% confidence interval
Males	None	5.8	2.4–9.2	5.1	3.9–6.3
	One or two serves	63.0	56.9–69.0	64.4	62.0–66.9
	Three or four serves	23.9	18.7–29.2	22.5	20.4–24.5
	Five or more serves	6.3	3.4–9.1	6.6	5.2–8.0
Females	None	1.5	0.6–2.5	3.9	3.1–4.7
	One or two serves	39.4	34.6–44.1	44.5	42.5–46.5
	Three or four serves	44.4	39.6–49.2	37.5	35.6–39.4
	Five or more serves	14.4	11.3–17.6	13.1	11.9–14.4
Persons	None	3.6	1.9–5.4	4.5	3.8–5.2
	One or two serves	51.0	47.0–54.9	54.2	52.6–55.8
	Three or four serves	34.3	30.7–38.0	30.2	28.7–31.6
	Five or more serves	10.4	8.3–12.6	9.9	9.0–10.9

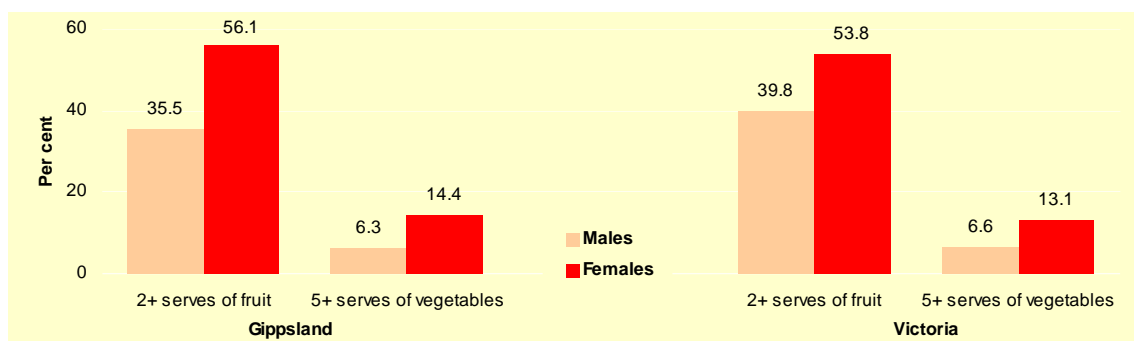
Table 11: Self-reported prevalence of daily fruit consumption by sex and number of serves, 2006

Sex	Number of serves	Gippsland		Victoria	
		(%)	95% confidence interval	(%)	95% confidence interval
Males	None	25.4	19.5–31.2	20.3	18.3–22.3
	One serve	38.3	32.2–44.4	38.8	36.3–41.3
	Two or more serves	35.5	29.6–41.4	39.8	37.2–42.3
Females	None	11.5	8.4–14.6	11.1	9.9–12.3
	One serve	31.1	26.7–35.6	34.0	32.1–35.8
	Two or more serves	56.1	51.3–60.9	53.8	51.9–55.8
Persons	None	18.3	15.0–21.7	15.6	14.4–16.8
	One serve	34.7	30.9–38.4	36.3	34.7–37.9
	Two or more serves	46.0	42.1–49.9	47.0	45.4–48.6

Consumption patterns for fruit and vegetables within the region were generally similar to those seen elsewhere in Victoria. Of particular note, however, is that women in the region were significantly less likely than other Victorian women to report not consuming vegetables (1.5% compared with 3.9% for Victoria) and significantly more likely to report consuming three or four serves per day (44.4% compared with 37.5%).

Figure 3 shows the proportion of adults aged 18 years or more who reported consuming at least the recommended daily amount of fruit and/or vegetables.

Figure 3: Self-reported prevalence of consumption of at least the recommended intake of fruit and/or vegetables, by sex, 2006



How common is physical inactivity?

Physical inactivity is a major modifiable risk factor for a range of diseases and conditions, including cardiovascular disease, diabetes, obesity, some cancers, and falls among the elderly.⁷⁻¹¹ The national physical activity guidelines for Australians¹² recommend that individuals undertake at least 30 minutes of moderate-intensity activity on most days of the week. This is generally interpreted as meaning at least 30 minutes on each of five or more days of the week.

Table 12 shows the percentage of adults reporting inadequate physical activity during the previous week. Adults with inadequate physical activity include those who are sedentary (4.7% of adults in the region) and those who reported an insufficient amount of time and/or sessions spent exercising during the week. This was defined as exercising for less than 150 minutes per week and/or participating in less than five exercise sessions per week. In the region, 28.5% of adults reported an insufficient amount of time and/or sessions spent exercising.

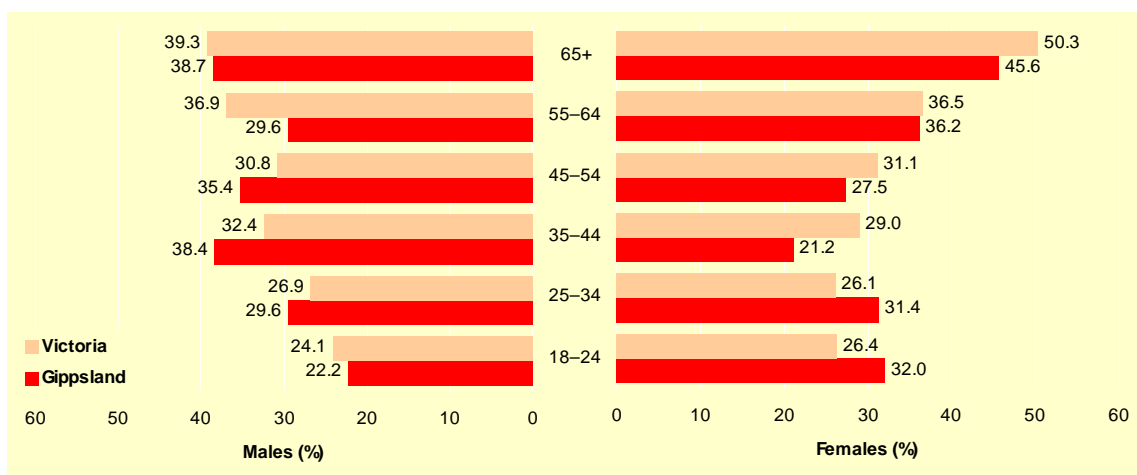
The proportion of adults in the region categorised as having sedentary behaviour was lowest for men and women aged 18–24 years. Adults in the region aged 35–44 years were significantly less likely than other Victorians to report sedentary behaviour (0.7% compared with 3.7% for Victoria).

Table 12: Self-reported prevalence of sedentary behaviour/insufficient exercise during the previous week, by sex and age, 2006

Sex Age group	Gippsland				Victoria			
	Sedentary behaviour		Insufficient time and/or sessions		Sedentary behaviour		Insufficient time and/or sessions	
	(%)	95% confidence interval	(%)	95% confidence interval	(%)	95% confidence interval	(%)	95% confidence interval
Males								
18–24 years	0.0	0.0–0.0	22.2	1.5–43.0	3.9	0.8–7.0	20.2	13.3–27.1
25–34 years	10.2	0.0–20.8	19.4	3.5–35.2	2.1	0.6–3.6	24.8	18.5–31.0
35–44 years	0.0	0.0–0.0	38.4	21.6–55.2	3.7	1.6–5.8	28.7	23.7–33.7
45–54 years	3.3	0.0–7.7	32.2	19.7–44.6	6.1	3.6–8.6	24.7	20.3–29.1
55–64 years	3.2	0.0–6.9	26.4	16.2–36.5	5.3	2.2–8.5	31.6	26.0–37.2
65 years or more	11.6	4.6–18.5	27.1	17.8–36.4	7.1	4.9–9.3	32.2	27.9–36.5
Total	5.1	2.6–7.5	28.3	22.7–34.0	4.6	3.6–5.6	27.1	24.8–29.3
Females								
18–24 years	0.0	0.0–0.0	32.0	10.1–53.9	2.5	0.5–4.5	23.9	17.2–30.6
25–34 years	3.4	0.0–8.4	28.0	14.9–41.1	3.7	1.8–5.5	22.4	18.3–26.6
35–44 years	1.5	0.0–3.6	19.7	11.8–27.6	3.8	2.2–5.4	25.2	21.7–28.7
45–54 years	1.6	0.0–3.8	25.9	17.1–34.7	3.8	2.1–5.4	27.3	23.5–31.1
55–64 years	5.1	1.2–8.9	31.1	22.1–40.2	4.8	2.9–6.6	31.7	27.6–35.8
65 years or more	10.7	4.7–16.7	34.9	26.0–43.8	12.7	9.6–15.7	37.6	33.4–41.8
Total	4.4	2.5–6.2	28.6	24.2–33.0	5.4	4.5–6.3	28.1	26.4–29.9
Persons								
18–24 years	0.0	0.0–0.0	27.0	11.7–42.3	3.2	1.3–5.0	22.0	17.2–26.8
25–34 years	6.8	1.0–12.7	23.7	13.4–34.0	2.9	1.7–4.1	23.6	19.8–27.3
35–44 years	0.7	0.0–1.8	28.8	19.5–38.1	3.7	2.4–5.1	26.9	23.9–30.0
45–54 years	2.4	0.0–4.9	29.0	21.4–36.7	4.9	3.4–6.4	26.0	23.1–28.9
55–64 years	4.1	1.4–6.8	28.7	21.9–35.6	5.0	3.2–6.9	31.7	28.2–35.1
65 years or more	11.1	6.5–15.7	31.3	24.8–37.7	10.2	8.2–12.2	35.2	32.2–38.2
Total	4.7	3.2–6.2	28.5	24.9–32.0	5.0	4.4–5.7	27.6	26.2–29.0

Figure 4 shows the proportion of adults, by age group and gender, who undertake less than the recommended levels of exercise. This includes adults who are sedentary together with those who exercise for less than 150 minutes per week and/or participate in less than five exercise sessions per week.

Figure 4: Self-reported prevalence of sedentary behaviour/insufficient exercise during the previous week, by sex and age, 2006



How common is obesity?

Cardiovascular health risks associated with being overweight or obese include an increased risk of developing type 2 diabetes, cardiovascular disease and high blood pressure. The most common population-level measure of weight status is body mass index (BMI). Self-reported height and weight data were used to determine the BMI for each survey respondent (weight in kilograms, divided by height in metres squared).

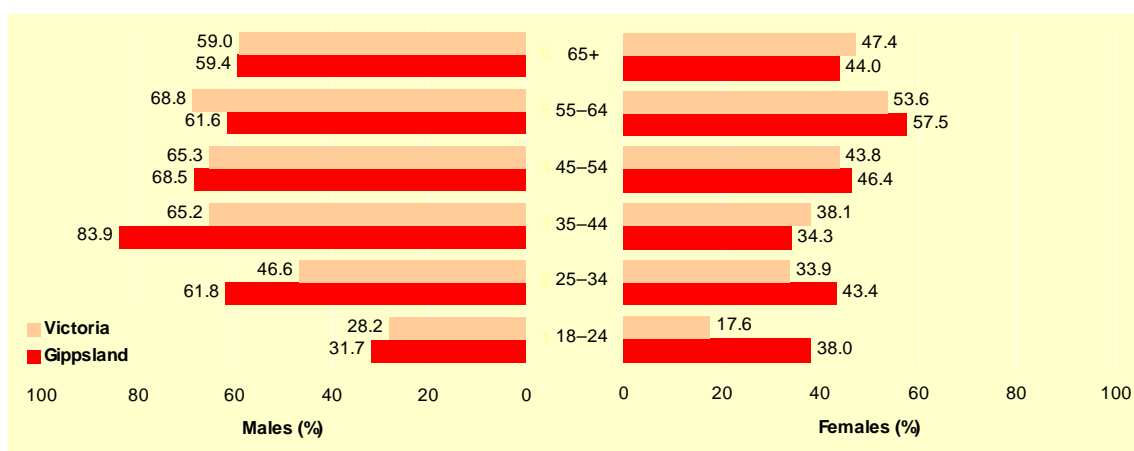
Being overweight refers to increased body weight in relation to height, compared with a standard of acceptable or desirable weight. BMI data were classified into the following categories using the standard cut-offs recommended by the World Health Organization:¹³

- less than 18.5 (underweight)
- 18.5 to less than 25.0 (normal)
- 25.0 to less than 30.0 (overweight)
- 30.0 and above (obese).

Being overweight may be due to increases in body fat, or increases in muscle and other lean tissue. People who are overweight due to lean tissue mass are not necessarily overweight, regardless of BMI.

Figure 5 shows the proportion of adults who are categorised as being either overweight or obese on the basis of their self-reported height and weight by sex and age. It compares findings for the Gippsland region with those for Victoria.

Figure 5: Prevalence of being overweight or obese, based on self-reported height and weight, by sex and age, 2006



The proportion of both men and women who were categorised as being either overweight or obese was generally higher in the older age groups. Despite this, in the Gippsland region, the highest proportion of overweight/obese men was in the age group 35–44 years (83.9% compared with 65.2% for Victoria). The highest proportion of obese/overweight women was in the age group 55–64 years (57.5% for the Gippsland region compared with 53.6% for Victoria).

Almost one-third (31.6%) of adults in the region were categorised as being overweight. A further 22.1% of adults in the region were categorised as being obese. These proportions were similar to those for Victoria. Of note however is that men aged 35–44 years were significantly more likely than other Victorian men to be categorised as obese (40.3% compared with 16.6% for Victoria).

Table 13: Prevalence of being overweight or obese, based on self-reported height and weight, by sex and age, 2006

Sex Age group	Gippsland				Victoria			
	Overweight		Obese		Overweight		Obese	
	(%)	95% confidence interval	(%)	95% confidence interval	(%)	95% confidence interval	(%)	95% confidence interval
Males								
18–24 years	19.0	0.0–40.2	12.7	0.0–29.4	22.2	15.0–29.4	6.0	2.9–9.0
25–34 years	42.5	23.9–61.0	19.4	3.5–35.2	32.3	25.5–39.1	14.3	9.7–18.9
35–44 years	43.5	26.7–60.3	40.3	22.6–58.1	48.6	43.0–54.1	16.6	12.8–20.4
45–54 years	44.8	31.9–57.8	23.7	13.1–34.3	45.5	40.3–50.6	19.8	15.7–23.9
55–64 years	38.0	27.1–49.0	23.6	13.0–34.2	44.0	38.3–49.7	24.8	19.5–30.1
65 years or more	37.8	27.6–47.9	21.6	12.8–30.4	43.7	39.2–48.3	15.3	12.1–18.5
Total	38.9	32.9–45.0	24.4	18.8–30.1	40.0	37.5–42.5	16.3	14.6–18.0
Females								
18–24 years	14.0	0.0–29.2	24.0	4.9–43.1	12.4	7.7–17.0	5.2	2.2–8.1
25–34 years	21.1	9.4–32.9	22.3	10.5–34.1	21.4	17.3–25.5	12.5	9.3–15.7
35–44 years	18.0	10.6–25.3	16.3	8.9–23.7	24.0	20.6–27.4	14.1	11.4–16.8
45–54 years	19.8	11.8–27.8	26.6	17.8–35.3	25.6	22.0–29.3	18.2	15.1–21.3
55–64 years	37.3	28.0–46.6	20.2	12.5–28.0	31.6	27.6–35.7	22.0	18.3–25.7
65 years or more	30.4	21.6–39.2	13.6	7.1–20.1	32.0	27.9–36.0	15.4	12.1–18.6
Total	24.4	20.4–28.4	19.8	16.0–23.6	24.9	23.3–26.6	14.7	13.4–16.0
Persons								
18–24 years	16.6	3.4–29.8	18.2	5.3–31.0	17.4	13.0–21.8	5.6	3.5–7.7
25–34 years	31.8	20.6–42.9	20.8	11.0–30.7	26.8	22.9–30.8	13.4	10.6–16.2
35–44 years	30.5	21.4–39.6	28.0	17.9–38.2	36.1	32.8–39.5	15.4	13.0–17.7
45–54 years	32.3	24.3–40.2	25.1	18.3–32.0	35.4	32.2–38.6	19.0	16.4–21.6
55–64 years	37.7	30.5–44.9	21.9	15.3–28.5	37.8	34.3–41.3	23.4	20.2–26.6
65 years or more	33.8	27.1–40.5	17.3	11.9–22.7	37.2	34.1–40.2	15.3	13.0–17.6
Total	31.6	27.9–35.2	22.1	18.7–25.5	32.3	30.8–33.8	15.5	14.4–16.6

How common is high blood pressure?

Elevated blood pressure is an important risk factor for cardiovascular disease. In 2006, 24.5% of Victorians indicated that they had been diagnosed with high blood pressure by a doctor.

Table 14 compares the proportion of adults with high blood pressure in Victoria with that for the Gippsland region.

Table 14: Self-reported prevalence of high blood pressure, by sex and age, 2006

Sex	Age group	Gippsland		Victoria	
		(%)	95% confidence interval	(%)	95% confidence interval
Males	18–24 years	19.0	0.0–40.2	2.6	0.6–4.6
	25–34 years	4.8	0.0–11.8	8.9	4.8–13.1
	35–44 years	9.8	0.0–20.2	11.8	8.4–15.3
	45–54 years	27.8	16.9–38.7	23.6	19.4–27.8
	55–64 years	41.4	30.0–52.7	35.0	29.6–40.4
	65 years or more	46.7	36.3–57.1	54.4	49.9–59.0
	Total	26.6	21.4–31.7	22.2	20.3–24.1
Females	18–24 years	2.0	0.0–6.0	2.8	0.6–5.1
	25–34 years	13.7	3.9–23.5	13.1	9.7–16.5
	35–44 years	14.1	7.7–20.5	14.3	11.7–17.0
	45–54 years	30.4	21.1–39.7	25.6	21.8–29.4
	55–64 years	42.4	32.9–51.9	39.6	35.3–43.9
	65 years or more	65.4	56.4–74.4	59.2	55.0–63.5
	Total	32.5	28.2–36.8	26.7	25.0–28.3
Persons	18–24 years	10.8	0.0–22.2	2.7	1.2–4.2
	25–34 years	9.3	3.2–15.4	11.0	8.3–13.7
	35–44 years	12.0	5.9–18.0	13.1	10.9–15.3
	45–54 years	29.1	21.9–36.3	24.6	21.8–27.4
	55–64 years	41.9	34.5–49.3	37.3	33.8–40.8
	65 years or more	56.7	49.8–63.7	57.1	54.0–60.2
	Total	29.6	26.2–32.9	24.5	23.2–25.7

Levels of high blood pressure were generally higher among women and increased with increasing age. Overall, levels of high blood pressure were marginally higher in the Gippsland region than for Victoria.

How commonly do people use screening tests?

In Victoria, data are collected each year about some routine checks or screening tests that may be performed to identify the presence of risk factors for the development of a disease or condition before its symptoms occur. These data are collected via the Victorian Population Health Survey. They are collected for the following two factors that may influence development of cardiovascular disease: blood pressure and blood cholesterol levels.

How many people have had their blood pressure checked?

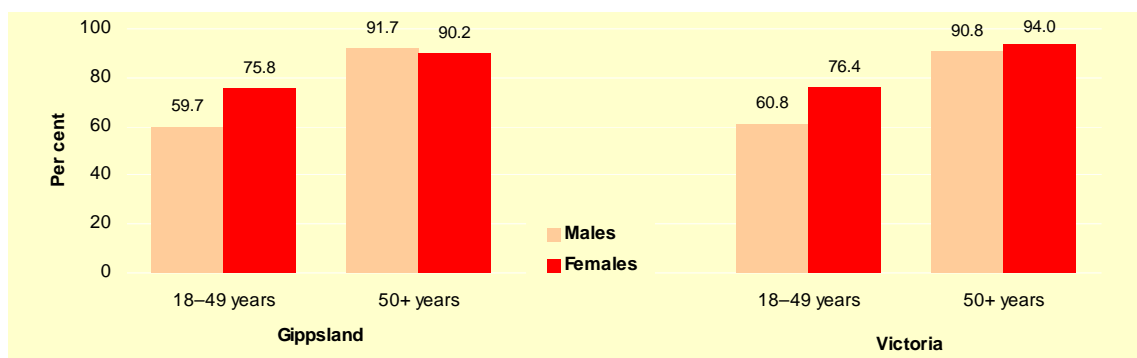
It is recommended that all adults have their blood pressure checked regularly, primarily to identify high blood pressure, also known as hypertension.¹⁴ Table 15 shows the percentage of adults, in the Gippsland region and in Victoria, who reported having had their blood pressure checked within the previous two years.

Table 15: Self-reported prevalence of having had a blood pressure check in the previous two years, by sex and age, 2006

Sex	Age group	Gippsland		Victoria	
		(%)	95% confidence interval	(%)	95% confidence interval
Males	18–49 years	59.7	49.7–69.8	60.8	57.2–64.4
	50 years or more	91.7	87.8–95.5	90.8	88.9–92.7
	Total	74.8	68.9–80.8	72.5	70.1–75.0
Females	18–49 years	75.8	69.6–81.9	76.4	74.0–78.8
	50 years or more	90.2	86.5–94.0	94.0	92.8–95.2
	Total	82.5	78.7–86.3	83.6	82.1–85.2
Persons	18–49 years	68.0	62.0–73.9	68.7	66.5–70.9
	50 years or more	90.9	88.2–93.6	92.5	91.4–93.6
	Total	78.7	75.2–82.3	78.2	76.8–79.7

In the Gippsland region almost 80% of adults reported having had their blood pressure checked within the past two years, including more than 90% of adults aged 50 years or more (90.9%).

Figure 6: Self-reported prevalence of having had a blood pressure check in the previous two years, by sex and age, 2006



Victorians aged 50 years or more were more likely than younger adults to report having had their blood pressure checked within the past two years. In Victoria, for adults aged less than 50 years, women were more likely than men to have had their blood pressure checked.

How many people have had their blood cholesterol checked?

Elevated blood cholesterol is an important risk factor for coronary heart disease. Cholesterol checks are recommended for persons potentially at high risk, such as smokers, those with a significant family history of coronary heart disease (a first-degree relative affected before the age of 60 years), those who are overweight or obese, those who have high blood pressure and those aged 45 years or more.¹⁵

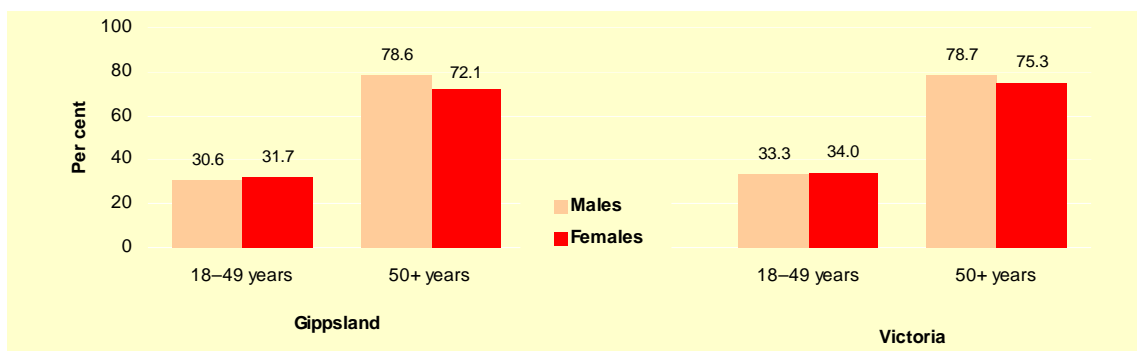
Table 16 shows the percentage of adults in the Gippsland region and in Victoria who have had their blood cholesterol checked within the previous two years.

Table 16: Self-reported prevalence of having had a blood cholesterol check in the previous two years, by sex and age, 2006

Sex	Age group	Gippsland		Victoria	
		(%)	95% confidence interval	(%)	95% confidence interval
Males	18–49 years	30.6	21.5–39.8	33.3	30.0–36.7
	50 years or more	78.6	72.8–84.4	78.7	76.0–81.4
	Total	53.3	46.9–59.8	51.1	48.5–53.7
Females	18–49 years	31.7	25.3–38.1	34.0	31.5–36.6
	50 years or more	72.1	66.4–77.8	75.3	72.9–77.6
	Total	50.4	45.6–55.2	50.9	48.9–52.9
Persons	18–49 years	31.2	25.7–36.7	33.7	31.6–35.8
	50 years or more	75.3	71.3–79.4	76.9	75.2–78.7
	Total	51.9	47.9–55.8	51.0	49.4–52.6

Reported levels of cholesterol testing for adults living in the Gippsland region were similar to those for Victoria as a whole. Levels of testing for men were slightly higher than those for Victoria (53.3% compared with 51.1% for Victoria). Levels of testing for women were almost identical to those for Victoria (50.4% compared with 50.9% for Victoria).

Figure 7: Self-reported prevalence of having had a blood cholesterol check in the previous two years, by sex and age, 2006



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- For further information about the data in this fact sheet, visit <http://www.health.vic.gov.au/healthstatus/>
- For further information about cardiovascular disease, visit <http://www.heartfoundation.org.au>.